



# DIPLOCAULOBIMUM OBYRNEI (ORCHIDACEAE), A NEW SPECIES FROM PAPUA NEW GUINEA

by

Wayne K. Harris

Department of Botany, The University of Queensland, St. Lucia, Queensland, 4072, AUSTRALIA

## ABSTRACT:

*Diplocaulobium obyrnei* (Orchidaceae: Dendrobiinae), from Misima and the Rigo area, Central Province, is described as a new species.

The genus *Diplocaulobium*, centred on New Guinea, comprises at least 100 species distributed from Malaysia to Fiji with the greatest diversity in Papua New Guinea and Irian Jaya. A review of the genus has been commenced by the author and during this study this prominent species has been selected for formal description. It is grown widely in eastern Australia under several incorrect names, a feature shared by several other *Diplocaulobium* species.

O'Byrne (1992) recognised this species as new, his *Diplocaulobium* species D 1070, and gave a full and complete description (p.196-7 and plate D 1070) pointing out its distinctive growth habit, the very large mentum and the simple labellum. More recently Lavarack (1997) has figured the same species in an article on the genus.

## MATERIALS AND METHODS

The description of the new species was made from fresh living plants, spirit preserved specimens stored in BANG mix (65% ethanol, 5% glycerol, and 30% water), floral dissection cards and 35mm color transparencies of flowers and plants.

*Diplocaulobium obyrnei* W.K.Harris sp. nov.

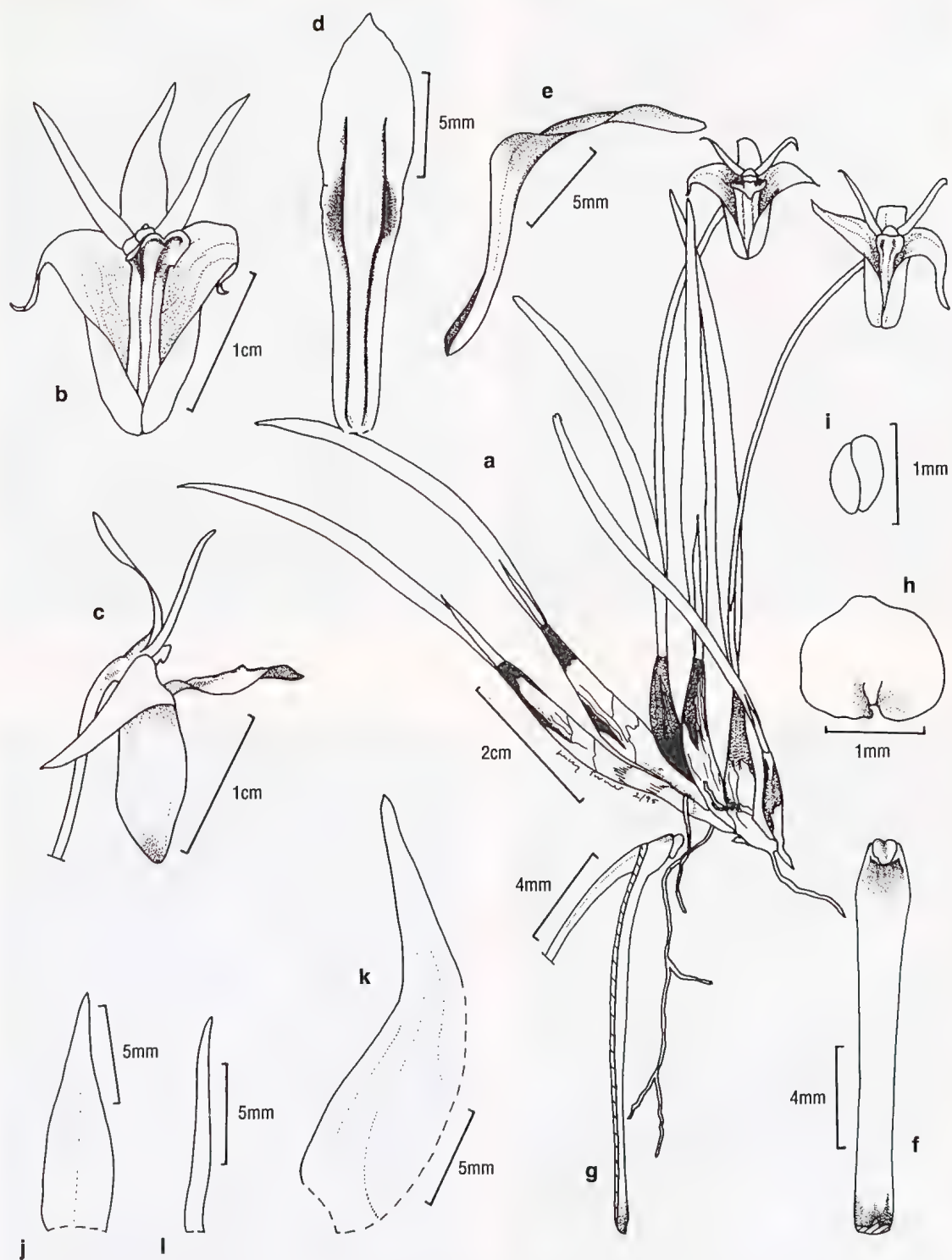
Species nova *Diplocaulobio gracilento* Schltr. affinis *pseudobulbis gracilibus fusiformibus*, mento profundo, labello simplici oblongo candido apice flavo et carinis duabus rectis elevatis purpureis, ad c. 4-5 millimetris apice attingentibus, differt.

TYPE: cultivated at the Australian National Botanic Gardens, Australian Capital Territory, Canberra, 6 Nov. 1989, M.A.Clements s.n. (Holotype CANB 7901448; isotype BRI, CANB, NCBG).  
PROVENANCE: plant originally collected from

Papau New Guinea, Central Province, Rigo area, Millar s.n., 1975.

Epiphytic erect to creeping **herb** c. 10 cm tall. **Rhizomes** short, initially clustered but becoming more distant with age covered with pale brown scarious sheaths. **Pseudobulbs** light green covered in pale brown scarious sheaths when young, fusiform, up to 4 x 0.5 cm at the base, 1.5-2 mm above, unifoliate. **Leaf** erect, stiff, prominently channelled, linear, 8-10 x 0.3-0.4 cm, minutely bilobed at apex. **Inflorescence** terminal, one-flowered. **Floral bract** lanceolate, 0.6-2 cm long. **Flower** with pale yellow-green to cream sepals and petals becoming yellow at the tips with a cream lip with wine red markings on the margins near the centre of the labellum and a two purple keels. **Pedicel and ovary** 4-5 cm long, erect to suberect, ovary not developed at anthesis. **Dorsal sepal** lanceolate, acuminate, 12 x 3 mm wide at base. **Lateral sepals** obliquely triangular, acute, 1.5 x 15 mm at base forming an obtuse mentum with the column-foot. **Petals** filiform with margins in-rolled, 13 x 1 mm. **Labellum** erect for about half of its length and then becoming porrect, oblong 20 x 7 mm, tip yellow, acuminate, the callus with two straight keels terminating c.3 mm from tip. **Column** 2 mm long, porrect from the end of the ovary, with a 15 mm long foot, slightly curved. **Stigma** transversely ovate, c. 0.8 mm across, sunken. **Anther** ovate, c. 1 x 1.5 mm, cream. **Pollinia** obovoid, c. 0.5 mm long, white. **Capsule** not seen. **Fig.1 & Plates 1 and 2.**

**FLOWERING PERIOD:** Cultivated plants flower sporadically throughout the year. The flowers last



**Figure 1.** *Diplocaulobium obyrnei*, CANB 7901448: **a.** part of a plant: **b.** flower from the front: **c.** flower from the side: **d.** labellum flattened viewed from above: **e.** labellum from the side: **f.** column from front: **g.** column from side: **h.** anther cap from above: **i.** pollinium: **j.** dorsal sepal: **k.** lateral sepal: **l.** petal.

(Drawing by Lucy Turner)

only one day and do not turn pink as they age.

ILLUSTRATIONS: p.197 and plate D1070. O'Byrne (1992); figure 3, Lavarack (1997).

DISTRIBUTION: Known only from the Rigo area and the Island of Misima, Milne Bay Province (Smedley pers. comm.).

HABITAT: O'Byrne (1992) records the species as 'growing in seasonally dry rainforest overhanging a stream'. On Misima Island the species occurs on the edge of lowland rainforest at c. 300 m. (Smedley pers. comm.).

RECOGNITION: This species is recognised by its erect to creeping habit, the initial pseudobulbs clustered and the later pseudobulbs more distant. The simple labellum, which is erect for about half its length and then porrect is distinctly marked with wine-red on the margins near the centre and with two purple keels.

AFFINITIES: *Diplocaulobium obyrnei* is close to *D. gracilentum* but the latter has a caespitose habit and

the flowers are white or pale pink with a shorter, (c. 1 cm), white labellum.

CONSERVATION STATUS: Although this species has only been recorded from two localities in Papua New Guinea it is probably more widespread

ETYMOLOGY: Named after Peter O'Byrne who first informally described this species.

#### ACKNOWLEDGEMENTS

I would like to thank Mark Clements for his encouragement and support for this project on the revision of the genus and the information on the type specimen. Darryl Smedley provided information and plant material on the Misima Island plants. Peter Bostock (BRI) provided the Latin diagnosis and Lucy Turner the Illustration.

#### REFERENCES

- Lavarack, P.S. (1997). *Diplocaulobium* species. *Australian Orchid Review* 62 (1) :17.
- O'Byrne, P. (1994). *Lowland Orchids of Papua New Guinea*. National Parks Board, Singapore Botanic Gardens, Singapore.







2A. The plant of *Diplocaulobium obyrnei* from which the type specimen was collected.



2B. Close up of the flower of the type.